REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 20 and 21 have been added. Claims 1-14, 17, 18 and 20-21 are pending and under consideration. Reconsideration of the claims is respectfully requested.

REJECTIONS UNDER 35 U.S.C § 103

At pages 2-4, item 3 of the Office Action, claims 1-3, 7-11, 13 and 17-18 are rejected under 35 U.S.C. § 103(a) as being obvious over Lownes (U.S. Patent 6,137,539).

It is respectfully submitted that Lownes et al. is not a proper reference under 35 U.S.C. §103 insofar as it is not a proper reference under 35 U.S.C. §102. As set forth in the attached Declarations under 37 C.F.R. 131(a), the inventors signed an invention disclosure on May 16, 1997 which disclosed the recited invention. This disclosure was forwarded to prepare Korean Application Nos. 1997-29836, 1997-29839 and 1997-32239. Verified translations of the invention disclosure and the Korean Applications are submitted herewith. The date of the invention disclosure is prior to the filing date of Lownes et al., which is October 9, 1998.

Furthermore, it is noted that claim 1 recites "displaying...minor channel numbers of programs received through a currently selected major channel." These features are illustrated, for example, in FIGS. 3, 5A-5C and 7A-7B of the present application. These FIGS. display the major channel (32) and the corresponding minor channels (32-1, 32-2, 32-3, 32-4). The numbers of the minor channels are all displayed. Thus, the number of the selected minor channel is displayed, as well as the numbers of the non-selected minor channels. However, it is still possible to distinguish between the number of the selected minor channel and the non-selected minor channels, which are also displayed. As shown in FIG. 5B, minor channel 32-2 is selected, and the corresponding display is in 'bold.' Although minor channels 32-1, 32-3 and 32-4 are not selected, these numbers are still displayed, but not with bold. When a new minor channel is selected, the corresponding number is shown in bold. For example, FIG. 5C shows the case when minor channel 32-4 is selected.

An advantage of the invention of claim 1 is that the user can easily select between the minor channels. This is because the user knows the number of minor channels corresponding

to the major channel. Also, if the user wishes to change to a different minor channel, the user simply has to select the number of that channel from the displayed minor channels.

In contrast, Lownes et al. does not teach that multiple minor channel numbers are displayed. Referring to FIGS. 3A-3E of this reference, the numbers of the selected major channel and the selected minor channel are displayed. However, among the minor channel numbers, only the number of the selected minor channel is displayed. For example, FIG. 3A of this reference displays major channel 10 and minor channel 2. There is no display of the numbers 10-0, 10-1, 10-3 and 10-4. When the user selects minor channel 10-3, only this channel number is displayed.

The remaining channel numbers are not displayed. Instead, a graphic illustration 316 of these minor channels is displayed. For example, when minor channel 32-0 is not selected, this channel is represented by a darkened box.

This arrangement is disadvantageous as compared to the claimed invention of claim 1 because channel selection is more difficult for the user. By representing the minor channels as graphic illustrations 316 instead of the channel numbers themselves, the user is forced to undergo an additional mental step of determining which graphic illustration corresponds to the desired channel. For example, if the user knows he wants to select channel 32-3, he must determine which box corresponds to this channel, and then go to this box. This determination may be especially difficult when there is a large number of minor channels.

Further confusion is introduced when the minor channel numbering scheme differs between major channels. For example, for one major channel, the lowest minor channel may be channel '1,' whereas another major channel may begin at zero. Thus, the user cannot easily ascertain the channel number of the leftmost box. With respect to the right side of the graphic illustrations 316, even with a small number of minor channels, it would be difficult for the user to determine the channel number of the highest minor channel. This is because it would be difficult to count the number of boxes, which are relatively small in size.

Accordingly, claim 1, and claims 2-3 depending therefrom, are patentable over this reference.

Independent claims 7, 17 and 18 recite similar features. Accordingly, independent claims 7, 17 and 18, and claims 8-11 and 13 depending therefrom, are patentable over the Examiner's cited reference.

At pages 4-5, item 4 of the Office Action, claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lownes et al. in view of Lee (U.S. Patent 6,104,436). At pages 5-6, item 5 of the Office Action, claims 12 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lownes et al. in view of Keenan (U.S. Patent 5,161,023).

Insofar as Lownes et al. is not a proper reference, withdrawal of the rejections is requested. Furthermore, it is respectfully submitted that Lee and Keenan do not overcome the above deficiencies in Lownes et al.

NEW CLAIMS:

New claims 20 and 21 are added and depend from claim 1. Accordingly, these claims are patentable over the cited references at least due to their dependency from claim 1.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: _____
Michael Badagliacca
Registration No. 39,099

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501